The multiple zero-age main-sequence O star Herschel 36

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We present a study of the zero-age main-sequence O star Herschel 36 in M8, based on high-resolution optical spectroscopic observations spanning six years. This object is definitely a multiple system. We propose a picture of a close massive binary and a companion of spectral type O, most probably in wide orbit about each other. The components of the close pair are identified as O9 V and B0.5 V. The orbital solution for this binary is characterized by a period of 1.5415 ± 0.00001 days. With a spectral type O7.5 V, the third body is the most luminous component of the system. It also presents radial velocity variations with short (couple of days) and long (hundred of days) timescales, although no accurate temporal pattern can be discerned from the available data alone. Some possible hypotheses to explain the variability are briefly addressed and further observations are suggested.